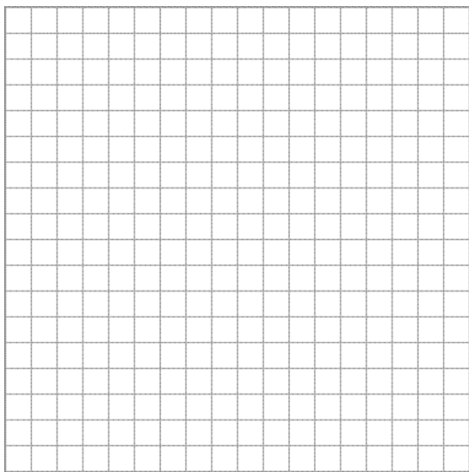


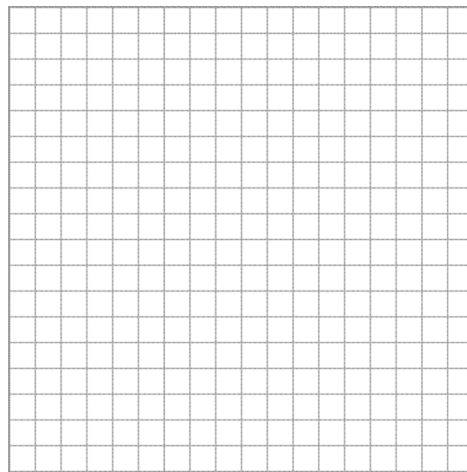
Section 3-4: The Graph of $Ax + By = C$

Warmup: Graph the following.

a. $y = 3x + 6$



b. $y = \frac{2}{3}x - 4$



Question: What do you notice about the two graphs?

Standard Form of an Equation for a Line:

“Shocking” Theorem:

Short Proof:

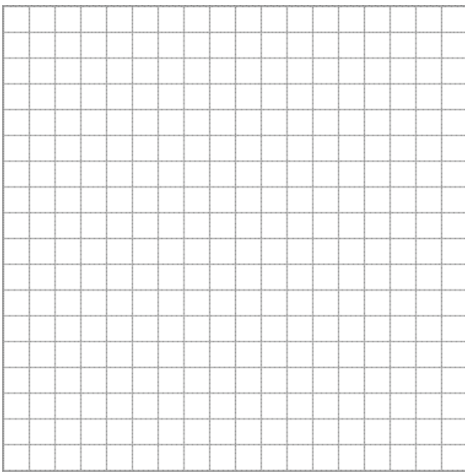
Example 1: State the slope and y-intercept without rewriting the equation $4x + 7y = 21$.

**Slope-intercept:*

**Standard Form:*

Another benefit of standard form:

Example 2: Graph $10x + 6y = 30$



Homework:

"The future belongs to those who prepare for it today." - Malcolm X